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## ABSTRACT

Compared were the academic majors of 169 deaf, 174 otherwise handicapped (orthopedically impaired, visually handicapped, and health impaired), and 25,809 nonhandicapped students at California State University, Northridge. Data indicated that the handicapped students chose majors in such fields as education, psychology, and vocational rehabilitation, to prepare them to work with other handicapped persons. (CL)

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A Comparison of the Majors of Deaf, Other Handicapped, and Non-Handicapped  
Students at California State University, Northridge  
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Running head: A Comparison of Majors

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At California State University, Northridge (CSUN), a liberal arts institution in suburban Los Angeles, 343 handicapped students shared the college experience during the Spring, 1977 semester with about 26,000 non-handicapped students.

The handicapped students have these characteristics:

1. Deaf or Hard-of-hearing (N = 169).
2. Other Handicaps (Total N = 174).
  - a. Blind or partially sighted (N = 25)
  - b. Orthopedic disabilities; post-polio, quadriplegic, paraplegic, etc. (N = 90)
  - c. Health impairments such as cancer, epilepsy, etc. (N = 59)

Special services for handicapped students are delivered through two offices:

1. Campus Services for the Deaf. Federal and state funds support a national program for 169 deaf students where the following support services are offered: interpreting, notetaking, tutoring, counseling, and aural rehabilitation.

2. Handicapped Student Affairs Office. State funds support this office, which deals with all handicaps other than deafness. Among the services offered are: readers for the blind, speech therapists, and adaptive physical education classes.

The mingling of handicapped and non-handicapped students is consistent with a strong national trend for handicapped persons to receive their education in the company of students who have no handicaps rather than in schools which serve only physically disabled students, i.e., schools for the deaf, blind, or orthopedically handicapped.

The catchword of this movement is "mainstreaming" and its meaning is clear: Handicapped persons should be educated in the mainstream of society and should enjoy full participation in all aspects of life.

Since more and more handicapped students are registering at colleges and universities across the country, college administrators, student personnel officers, and professors are extremely interested in the services needed to support handicapped students on campus, how well they achieve, and the academic majors they pursue.

There are a few answers to the issues noted above, most of them as they pertain to deaf students. For example:

Jones and Murphy (1972) described the services necessary to support deaf students in an "integrated" university setting as: interpreting, counseling, notetaking, and tutoring. Murphy (1976) found that deaf students at CSUN achieved academically at about the same rate as hearing students. Murphy and Murphy (1977) found that students with varying handicaps at Ventura Community College achieved at the same rate, indicating that none of the handicaps (deafness, blindness, orthopedic, health impairment) per se inhibit academic success in an integrated setting.

In a study of the majors of CSUN deaf versus hearing students at CSUN, Murphy and Jacobs (1977) found that:

1. A significantly greater proportion of deaf than hearing students enrolled in the graduate School of Education. In fact, at the graduate level, deaf students almost exclusively chose an Education major. This was thought to be so because CSUN actively recruits deaf students to their graduate-level program to prepare teachers of the deaf.

2. A significantly greater proportion of deaf than hearing undergraduates enrolled in the School of Humanities. This finding was clearly related to the one cited above in that a "liberal studies" program housed within the School of Humanities is the usual undergraduate preparation for those wishing to pursue graduate work in the School of Education.

3. A significantly greater proportion of hearing than deaf undergraduates enrolled in the School of Business. This was thought to be so because of a historic pattern of deaf persons tending to find employment in the public, rather than the private sector of our economy.

4. It was also found that deaf undergraduates were more undecided about a major than hearing undergraduates, but this situation was reversed at the graduate level. The authors concluded that it seems that deaf undergraduates take a little longer time to declare a major, but when they do, they apparently decide on a career in education, and prepare for this at the undergraduate level through course work in the School of Humanities. By the time the deaf students reach the graduate level, they major to the greatest degree in the School of Education.

While a comparison of deaf versus hearing choices of academic majors helped to shed some light on why deaf students come to CSUN and what preparation and/or employment areas might receive future consideration, no attempt was made at that time to consider the ways other handicapped students on campus chose majors. Unanswered were these questions:

1. Do the other handicapped groups (blind, orthopedic, health impairment) choose different majors than those chosen by deaf students?
2. Do the other handicapped groups differ from the non-handicapped group in their choice of majors?



### Methodology

The declared choice of majors was obtained for all students registered at the university for the Spring semester, 1977.

Majors of handicapped and non-handicapped students were grouped under eight schools of the university.

Another category is "Special Major," a separate designation for academic programs which cross schools and which students negotiate with several departments as highly individualized courses of study. Also, many students simply state "Undecided" as a choice.

The distribution of departments within each school is as follows:

1. School of the Arts. Departments: Art General Studies, Art History, Art Three-Dimensional Media, Art Two-Dimensional Media, Music, and Theatre.
2. School of Business Administration and Economics. Departments: Accounting, Business Law, Economics, Finance, Real Estate and Insurance, Management, Management Science, Marketing, Office Administration, and Business Education.
3. School of Communication and Professional Studies. Departments: Child Development, Communicative Disorders, Health Science, Home Economics, Journalism, Physical Education, Radio-Television-Film, Recreation and Leisure Studies, and Speech Communication.
4. School of Education. Departments: Administration and Supervision and Higher Education, Educational Psychology, Elementary Education, Secondary Education, Social and Philosophical Foundations, and Special Education.

5. School of Engineering and Computer Science. Departments: Computer Science, Electrical and Electronics Engineering, Mechanics and Materials, and Thermal-Fluid Systems.

6. School of Humanities. Departments: Chicano Studies, English, Foreign Language and Literatures, Philosophy, Religious Studies, and Liberal Studies.

7. School of Science and Mathematics. Departments: Biology, Chemistry, Geosciences, Mathematics, Physics and Astronomy.

8. School of Social and Behavioral Science. Departments: Anthropology, Geography, History, Pan African Studies, Political Science, Psychology, and Sociology.

The data showed the distribution of majors by school as follows:

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Insert Table 1 About Here

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For the purposes of this study, the entire student population of the university for the Spring, 1977 semester, both at the undergraduate and graduate levels, were divided into three groups: Deaf, Other Handicaps (blind, orthopedically handicapped, health impairments) and Non-handicapped.

For each school of the university, members of the above three groups were dichotomized into "enrolled versus non-enrolled" (in that particular school).

Where the number of handicapped enrollees by school was large enough to warrant statistical treatment, data were subjected to Chi Square analysis using Yates' correction for small samples.

Chi square analysis showed significant differences at the  $\alpha = .05$  level in a number of areas. All of the findings of the earlier study of deaf students by Murphy and Jacobs were reconfirmed in the present study. The major finding of that study, as well as this one, was that deaf students tend to enroll, at the graduate level, almost exclusively in the School of Education. They also enroll to a greater extent at the undergraduate level in the School of Humanities, where a course sequence in the Department of Liberal Studies prepares one to enter the graduate Department of Special Education.

Of special interest in this study was a consideration of the majors of persons with other handicaps. Comparisons were made to see if their choices were different from the choices of deaf students, or of persons with no handicaps.

#### Undergraduate Enrollment Patterns

1. Whereas deaf students are enrolled to a lesser extent in the School of Business at the undergraduate level, other handicapped persons are only slightly under the expected enrollment figure. The explanation for lower enrollments among this group is most likely the same as for deaf persons: handicapped professional persons tend to find employment in the public sector of our economy, to a large extent in such governmental agencies as school districts and rehabilitation agencies. When they find employment in a private organization, it also tends to be a non-profit organization serving handicapped clients.

2. Whereas deaf students enroll to a lesser extent in the School of Social and Behavioral Sciences, students with other handicaps are enrolled to a significantly greater extent. The most reasonable explanation



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for this seems to be that psychology is the most popular undergraduate major as many persons with other handicaps have identified the field of vocational rehabilitation counseling as their career choice and are preparing themselves accordingly.

3. Whereas deaf students are more undecided about an undergraduate major, students with other handicaps are significantly less undecided than the population of non-handicapped students. Again, this is probably so because their choice of an undergraduate major in the School of Social and Behavioral Sciences is apparently firm; and is apparently made relatively early in their college days.

#### Graduate Enrollment Patterns

1. Whereas deaf students enroll almost exclusively in the School of Education at the graduate level, students with other handicaps enroll in the School of Education in proportion to other graduate students within the university at large.

2. Students with other handicaps enroll to a significantly greater degree in the graduate School of the Humanities. There appears to be no one department within this school which attracts students with handicaps other than deafness. They are dispersed throughout the school's departments of: Chicano Studies, English, Foreign Languages, Philosophy, Religious Studies, and Liberal Studies.

3. Students with other handicaps enroll to a significantly greater degree in the graduate School of Social and Behavioral Sciences. The most popular department choice here is psychology and it would seem that handicapped students are further increasing the probability of a career

as a vocational rehabilitation counselor for the handicapped by seeking additional training.

4. At the graduate level, both deaf students and students with other handicaps are significantly less undecided than the population of non-handicapped students.

#### Summary

One clear pattern emerges from these data: Handicapped students choose academic majors designed to prepare them to help other handicapped persons.

Deaf persons choose undergraduate majors and graduate majors (Liberal Studies, Education) which will prepare them to teach other deaf persons; students with other handicaps tend to major in psychology at both the undergraduate and graduate levels as preparation for a career in vocational rehabilitation counseling.

Northridge has developed such programs and handicapped students are drawn to them because of the excellent reputation for the quality of training and an enviable placement record for graduates. While this is laudable it would seem that an interest in other career areas may be stimulated among capable handicapped students to avoid a stereotyped image of such persons being only capable of helping other handicapped persons, and also to avoid ultimately saturating the fields of education and rehabilitation.

With new regulations (Section 504 of the Rehabilitation Act of 1973) prohibiting discrimination against the handicapped among companies receiving federal funds, it would seem that handicapped employees will be in demand in many areas outside of education and rehabilitation. This should be kept in mind as handicapped persons receive academic counseling.

Table 1

Comparison of the Majors of Deaf, Handicapped, and  
Non-Handicapped Students at CSUN

Spring, 1977

School	Undergraduate Students			Graduate Students		
	Deaf	Other Handicapped	Non- Handicapped	Deaf	Other Handicapped	Non- Handicapped
Art	12	12	1,668	0	3	316
Business	14	26	4,105	1	3	582
Communication	20	33	3,734	1	3	688
Education	*	*	*	38	7	1,257
Engineering	4	2	1,048	0	0	237
Humanities	28	13	2,007	0	6	216
Science/ Mathematics	11	7	1,390	0	1	233
Social/ Behavioral	10	42	3,111	2	6	495
Special Major	0	1	131	0	0	12
Undecided	19	8	2,348	9	1	2,234
	118	144	19,542	51	30	6,267

\*In California, a student may major in Education only at the graduate level.

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